

REMARKS/ARGUMENTS

Allowability of claims 3-4 is noted. Claims 21-23 were cancelled following a restriction requirement and claim 24 was previously cancelled. Claims 1-20 and 25 remain in the application. Claim 3 is amended to clarify the claim as suggested by the office action.

Finality of the January 29, 2004 Office Action is premature.

The first Office Action in this case indicated allowability of claims 1-2, 5-8, 10, 12-20 and 25. This office action cites a new reference and withdraws allowability of all claims. An Office action citing new grounds of rejection should only be made final when applicant's amendment necessitates the new grounds of rejection. However, the amendments to these claims made in the May 1, 2003 response were specifically tailored to clarify the claims in a manner suggested in the first Office Action while minimally impacting the scope of the claims. These amendments could not possibly have changed the previously allowed claims in a manner that would "necessitate" use of the new reference as called for in the MPEP. Since the amendments made to the claims were specifically requested by the Office, they must have been anticipated by the Office and could not be grounds for a new search.

The cumulative effect of these actions is that Applicant is forced to address the new reference under the constraints of the Office's "after final" practice. Applicant's first opportunity to address this reference comes in response to a final office action. This is clearly not the intent of the after final practice as described in the MPEP. It is respectfully requested that the "made final" status of the January 29, 2003 office action be withdrawn.

A. Drawings.

Fig. 4 is amended to modify the remaining occurrence of "Vector O" to correctly read "Vector D". No new matter is added by this amendment.

B. Rejections under 35 U.S.C. 112.

Claims 3-4 were rejected under 35 U.S.C. 112. The amendment to claims 3-4 is believed to overcome the rejection.

C. Rejections under 35 U.S.C. 102.

Claims 1-2 and 5-8 were rejected under 35 U.S.C. 102 based upon the newly cited McGeer reference. Although not so stated, it appears that claims 9-23 and 25 are also rejected under 35 U.S.C. 102 based upon the McGeer reference. This rejection is respectfully traversed.

Independent claim 1 calls for, among other things, a method including an act of defining if the initiator or the interconnect is to be responsible for ordering responses. Further, claim 1 calls for determining if a delay stage is required in the initiator. At least these elements of claim 1 are not shown or suggested in the McGeer reference.

McGeer states at column 13, lines 24-26 that channels take the responsibility of delivering messages from invoking ports to invoked ports. Assuming for the sake of argument that a "channel" is analogous to the claimed interconnect, and that McGeer's invoking port is analogous to an initiator, it would appear that McGeer allows for only the channel to take responsibility for delivering messages. McGeer's invoking port cannot take responsibility for delivering a message, and so the claimed step of defining if the initiator or the interconnect is responsible for ordering responses would have no purpose in McGeer as the invoking port can not be responsible for ordering.

Moreover, McGeer's safe port implementation described in Column 14, lines 10-37 is not a delay stage as called for in claim 1. More correctly, the shadow registers in McGeer define a retransmission buffer that catches a message as it is being sent and, if necessary, resends the message. However, the shadow registers never delay the initial attempt to send the message to the channel. Hence, there is no "delay" described in the McGeer and so the claimed step of defining if a delay state is required is not shown or fairly suggested.

In view of the above, claim 1 is believed to be allowable over the McGeer reference. Claim 2 that depends from claim 1 is believed to be allowable for at least the same reasons as claim 1.

Claims 3-4 were indicated as allowable, presumably over McGeer, and so no argument is presented in this response.

Claims 5 and 7 call for, amongst other limitations, methods including acts of defining a number of routing resources, defining an arbitration method, and defining an association between the routing resources and the targets. These features of claim 5 are not shown or suggested in the McGeer reference.

The "user defined channel" in McGeer defines a type of channel that can be defined, but does not define a number of routing resources between an initiator and a target. As noted at column 17, lines 20-21, a port can take messages only from one channel. With this restriction there would be little purpose in McGeer having a step of defining the number of routing resources as that number is restricted to be one. While the present invention includes a preferred implementation in which the number of routing resources is one, by allowing for the definition of more than one routing resource between a target and an initiator the invention of claim 5 provides a distinct improvement over the system shown in McGeer.

For at least these reasons claims 5 and 7, as well as claims 6 and 8 that depend from claims 5 and 7, are neither anticipated nor made obvious by McGeer.

Independent claims 9, 10, 11 and 12 call for methods of designing an arbiter in which the arbitration method specifies whether the initiator is responsible for time based ordering. This feature of claim 9 is not shown or suggested by McGeer. It appears that the initiator in McGeer can not be responsible for time based ordering and therefore including an arbitration method that allows for this condition would serve no purpose. Certainly McGeer

does not appear to describe such a feature in the arbitration method. Moreover, it appears that McGeer's arbiter has only one arbitration method, not a plurality as called for in claims 12. For at least these reasons claims 9-12 are allowable over the relied on reference.

Claim 13 calls for, among other things, a model of an initiator that support an arrangement where either the initiator or the interconnect is responsible for maintaining the order of responses. As noted above, McGeer shows a system in which the initiator can not take responsibility for ordering responses. Accordingly, claim 13 and claims 14-16 that depend from claim 13 are allowable over McGeer.

Claim 17 calls for a locking stage within the model of a target. First, the "shadow registers" cited in the Office Action refer to a structure defined in the initiator, not the target. Second, the port blocking described in column 14 of McGeer does not implement a locked transaction as that term is described in the specification, it merely prevents the port from receiving data. For at least these reasons claim 17 and claims 18-20 that depend from claim 17 are not shown or suggested by McGeer.

Claim 25 is believed to be allowable over McGeer for at least the same reasons as claim 1 stated above.

D. Conclusion.

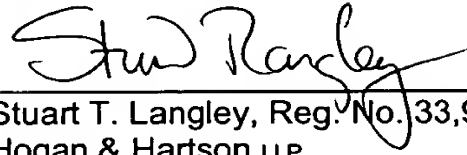
Withdrawal of the finality of the January 29, 2004 office action is specifically requested. In view of all of the above, claims 1-20 and 25 are now believed to be allowable and the case in condition for allowance which action is respectfully requested. Should the Examiner be of the opinion that a telephone conference would expedite the prosecution of this case, the Examiner is requested to contact Applicants' attorney at the telephone number listed below.

No fee is believed to be required by this response. Any fee deficiency associated with this submittal may be charged to Deposit Account No. 50-1123.

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